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# THE AGRICULTURAL SITUATION

AUGUST 1, 1937

## A Brief Summary of Economic Conditions

Issued Monthly by the Bureau of Agricultural Economics, United States Department of Agriculture

Subscription price, 25 cents per year; single copy, 5 cents; foreign price, 45 cents; payable in cash or money order to the Superintendent of Documents, Government Printing Office, Washington, D. C.

VOLUME 21 - NUMBER 8 - WASHINGTON, D. C.



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EXCEPT for limited areas the farm production and price picture is the brightest since before the depression. . . . The business outlook indicates continued strong demand for farm products. . . . Cotton farmers increased their acreages this year and growing conditions continue favorable. . . . In the spring wheat area rust damage is severe, but in most other areas small grains are practically assured. Corn still has to pass through a critical period. . . . Livestock men have good reason to believe that the coming winter feeding season will be one of high livestock prices and relatively low feed prices. . . . Winter wheat growers are enjoying the unusual experience of large crops and high prices. But there will be drought losses again. From the Canadian border of Montana and North Dakota drought reaches down through the Great Plains with varying intensity to the Panhandle of Texas and Oklahoma. Scobey, Mont., on several occasions credited with being the world's largest primary wheat market, will ship very few carloads of grain this year.

# Commodity Reviews

## DEMAND: Continues Strong

THE statistics of employment, pay rolls, and nonagricultural incomes have begun to reflect the leveling off in industrial activity of the past several months. Industrial activity seems to have continued to decline in June and early July—more than it usually does in those months. This slowing down in industrial activity is not expected to greatly change the outlook for consumer demand for farm products. Consumer demand does not ordinarily respond to minor variations in business conditions.

An analysis of industrial production statistics shows that in general the production of durable goods is still lagging behind the production of non-durable goods. There has been a marked recovery in the output of most lines of nondurable goods. The failure of building construction to recover significantly has been the outstanding feature of the industrial situation since the general recovery started. Building construction increased somewhat in June but there were no definite indications of an early vigorous revival of activity in this industry.

Industrial production in major foreign countries is continuing at a level about 10 percent higher than a year ago. The increase in the first quarter of the year was followed by a leveling off, somewhat comparable with that occurring in the United States. Foreign demand is expected to remain at least near present levels during the last half of the year.

## FARM INCOME: Up in June

Larger marketings of grains, together with sharp price rises of meat animals, particularly hogs, resulted in more income from farm marketings in June than in May. Income from marketings is usually less in June than in May. Farmers received less from Government payments in June than in May and less than in June 1936.

As a result of this decrease, total income received by farmers in June was smaller than in June 1936. For the first half of the year farmers have received 16 percent more income than in the first half of 1936. Here are the figures for May and June, 1936 and 1937:

	From marketings	From Government payments	Total
June 1937----	\$604,000,000	\$27,000,000	\$631,000,000
June 1936----	587,000,000	57,000,000	644,000,000
May 1937----	577,000,000	33,000,000	610,000,000
May 1936----	541,000,000	59,000,000	600,000,000

## FARM WAGES: Up

Farm wages usually rise during the second quarter of the year as farmers hire help for the heavy summer work. Wages have risen faster in the second quarter of 1937 than in any other year since 1923, at least. Reasons for the increase are the large volume of crops in prospect and the higher level of farm income. Wages averaged \$25.28 per month with board for the whole country on July 1 and \$36.14 without board. Farmers continue to report difficulty in obtaining enough labor. On July 1 crop reporters indicated that hired help was scarcer in relation to demand for help than at any time since March 1924.

## FARM PRICES: Lower in July

Prices received by farmers declined slightly from June 15 to July 15. The index of farm prices computed by the Bureau of Agricultural Economics dropped 1 point. Wheat, corn, meat animals, and livestock products advanced, while most of the other major products declined. On July 15, farm prices were 8 percent higher than on July 15 of last year. Prices paid by farmers were 7 percent higher than a year earlier. Buying power of farm products on July 15 was 94 percent of the pre-war level compared with 93 a month earlier and 93 a year earlier.

# Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products <sup>1</sup>
<i>1936</i>			
July.....	115	123	93
August.....	124	126	98
September.....	124	127	98
October.....	121	127	95
November.....	120	127	94
December.....	126	128	98
<i>1937</i>			
January.....	131	130	101
February.....	127	132	96
March.....	128	132	97
April.....	130	134	97
May.....	128	134	96
June.....	124	133	93
July.....	125	<sup>2</sup> 133	<sup>2</sup> 94

<sup>1</sup> Ratio of prices received to prices paid.

<sup>2</sup> Preliminary.

## Prices of Farm Products

Estimates of average prices received by producers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909-July 1914	July average, 1910-14	July 1936	June 1937	July 1937	Parity price, July 1937
Cotton, lb.....cents..	12. 4	12. 7	12. 6	12. 4	12. 4	16. 9
Corn, bu.....do.....	64. 2	70. 1	80. 2	117. 2	118. 1	87. 3
Wheat, bu.....do.....	88. 4	86. 2	94. 1	108. 9	112. 8	120. 2
Hay, ton.....dollars..	11. 87	11. 78	8. 66	10. 93	9. 48	16. 14
Potatoes, bu.....cents..	69. 7	81. 5	141. 1	90. 6	80. 4	94. 5
Oats, bu.....do.....	39. 9	40. 9	35. 2	48. 1	42. 5	54. 3
Soybeans, bu.....do....	( <sup>1</sup> )	( <sup>1</sup> )	105. 0	149. 7	132. 4	---
Peanuts, lb.....do....	4. 8	5. 1	3. 7	4. 2	4. 0	6. 5
Beef cattle, cwt....dollars..	5. 21	5. 33	5. 71	7. 13	7. 46	7. 09
Hogs, cwt.....do.....	7. 22	7. 25	9. 14	9. 97	10. 70	9. 82
Chickens, lb.....cents..	11. 4	12. 2	16. 1	14. 8	15. 3	15. 5
Eggs, doz.....do.....	21. 5	16. 7	20. 0	17. 6	19. 4	<sup>2</sup> 22. 6
Butterfat, lb.....do....	26. 3	23. 5	32. 6	30. 8	31. 1	<sup>2</sup> 33. 4
Wool, lb.....do.....	17. 6	17. 5	27. 5	31. 4	31. 3	23. 9
Veal calves, cwt....dollars..	6. 75	6. 74	7. 21	8. 01	8. 25	9. 18
Lambs, cwt.....do.....	5. 87	6. 09	7. 94	8. 88	9. 50	7. 98
Horses, each.....do....	136. 60	136. 30	95. 90	96. 50	95. 20	185. 80

<sup>1</sup> Prices not available.

<sup>2</sup> Adjusted for seasonality.

## WHEAT: Higher Prices

The wheat situation has changed to this extent in the last month: Canadian and European crops deteriorated markedly. World production outside Russia and China is now expected to

be about 3.7 billion bushels, or about 200 million bushels more than last year. World wheat supplies (excluding Russia and China) for the year beginning July 1, 1937, are now expected to be 65 million bushels smaller than in 1936-37—and the smallest



since 1926. The large reduction in carry-over stocks from last year's crop is expected to more than offset whatever increase in production occurs this year. World stocks of old wheat on July 1, excluding Russia and China, were about half a billion bushels, a quarter billion bushels less than last year, and the smallest since the World War.

With short supplies in prospect and with demand considerably improved compared with last year, Liverpool wheat prices are expected to average higher in 1937-38 than they did in the year just ended. After 4 years of small crops, United States wheat producers will this year have a considerable quantity for export in addition to supplying domestic requirements. Prices in importing countries may be high enough to more than offset the adjustment of United States prices to an export basis. In other words, United States prices during the coming marketing year may be higher than those received in the past marketing year.

Because of the scarcity of old-crop wheat in this country, the early movement of the new crop has been taken largely by mills, and prices have been on a high level. When the mills ease off in their buying, it is likely that some further adjustment in cash prices compared with prices in wheat importing countries will take place. But if cash prices decline in the next few months, causing large exports, they will probably rise later in the year both because of the reduction in the exportable surplus and because of a strengthening of world markets.

## TOBACCO: Larger Crop

The 1937 tobacco crop is expected to be about one-fourth larger than the 1936 crop, on the basis of July 1 conditions. If the indicated production of 1.4 billion pounds is harvested the crop will about equal the 1928-32 average production. Flue-cured tobacco production is expected to be

around 12 percent more than in 1936 and about the same amount greater than the 1928-32 average production. The crops of fire-cured, burley, dark air-cured, and cigar tobaccos are all expected to be larger this year than in 1936. Maryland tobacco is the only one of the major types for which a decrease is indicated by July 1 condition. Production of burley tobacco is expected to increase by about 65 percent over the small 1936 crop.

Consumer demand for tobacco products has been strong during the past marketing season and is expected to continue strong during the next season.

## COTTON: Increased Acreage

About 34 million acres of cotton were in cultivation on July 1 as against 31 million acres a year ago, an increase of about 10 percent. A report on indicated cotton yields and total production will be released August 9 by the Crop Reporting Board of the Bureau of Agricultural Economics. Weather reports indicate that conditions have continued favorable to the development of the crop.

Spot cotton prices at the 10 markets have fluctuated around 12½ cents per pound since early June. Prices of the principal foreign growths of cotton at Liverpool during June continued higher compared with American cotton than in the earlier months of the present season.

Consumption of cotton by domestic mills is still running at a high rate but is gradually declining as a result of the continued small volume of new orders compared with mill output. Price margins between raw cotton and finished cloth in July were lower than in recent months but are still higher than in any corresponding month on record. Cotton mill activity continued high in most foreign countries during June and early July. Mill sales of goods are reported to be below output in several countries, notably England, France, and Japan.

## RICE: Heavy Mill Stocks

Mill stocks of rice in the Southern States on July 1 were estimated to be about three times as large as the small stocks a year earlier. Stocks in mills and country elevators in California were also above average and about twice as large as on the same date last year. During recent weeks mills have been depending largely on stocks already accumulated or buying only small supplies as they were needed for current milled-rice sales. Prices have moved downward during the last 2 or 3 months, influenced principally by favorable prospects for the new crop and above-average stocks of old rice. July 1 condition indicated a 1937 crop of 49 million bushels, compared with a crop of 47 million bushels last year and 43 million bushels for the 1923-32 average.

## FRUITS: Big Crops

Growers of deciduous fruits will harvest larger crops than average this year, if production is as large as was indicated by July 1 conditions, and prices will probably average somewhat lower than in 1936.

**Apples.**—The 1937 crop is expected to be one-fifth larger than the 1931-35 average. The increase is mainly in the Central and Atlantic Coast States. The western crop is expected to be about the same as average. Growers will probably receive lower prices for the 1937 crop than they did for the short crop of last year, but higher than for the 1935 crop. **Peaches.**—The total crop is expected to be about one-fifth larger than last year but only slightly larger than the 1931-35 average. The crop in the Southern States, however, is relatively small, and shipments have been light so far. The usual decline in prices is expected to be less than average while the Southern States furnish the bulk of the supply, but greater than average when shipments begin in volume from the late States.

**Pears.**—The 1937 crop is now ex-

pected to be about 30 million bushels, the largest on record. Big increases are expected for Oregon, Washington, and several of the Central States. This large crop will probably result in lower prices to growers than were received last year. **Grapes.**—The grape crop is expected to be the largest since 1928, and on the basis of July 1 condition is indicated at 2.5 million tons, of which California will produce about 2.2 million tons. Demand is expected to be stronger than last year, because of increases in consumers' incomes. Stocks of raisins and wine are relatively low. Prices are expected to be somewhat lower than last year.

## TRUCK CROPS: Moving North

The harvest of commercial truck crops in the Southern States is about over. During August city markets will be supplied with fresh green vegetables from local market gardens and with commercial vegetable crops from the intermediate States and central California. In general, supplies are large this year. From a total market tonnage standpoint, vegetable production this year may exceed the record 6 million tons harvested in 1936. Prices will generally be lower in the next 2 months as supplies from northern producing areas increase.

**Lima Beans.**—Production in the second section of intermediate States which furnishes northern markets with most of their supplies during the next 3 months is expected to be about the same as last year. Prices will probably average above a year ago. **Cabbage.**—Increased acreage in the late States. Condition above average. Prices expected to decline more than usual in next 2 months. **Cucumbers.**—One-fifth larger crop than last year expected in intermediate States. Prices have been running below a year ago.

**Lettuce.**—Market supplies have been plentiful. Production expected to be one-fifth larger than last year in the late States. Prices may aver-

age as high as year ago because of stronger demand. **Celery.**—Production indicated for intermediate States which supply market during most of August about the same as 1936. **Watermelons.**—Prices have declined sharply in last month. Market supplies are expected to be larger than last year during remainder of season. **Onions.**—Crop is larger than last year in the intermediate States which furnish market supplies until September. Prices are above last year and probably will continue relatively high because of strong demand.

**Truck Crops for Manufacture.**—Acreages are above 1936 for all crops except tomatoes. Conditions indicate large yields. Since contracted prices were generally above 1936, returns to growers will be large this year.

## POTATOES: Heavy Yields

The condition of the potato crop on July 1 indicated that yields per acre would average around 125 bushels this year—the highest on record. The total potato crop this year is expected to be in excess of 404 million bushels and about one-fourth larger than the small crop harvested last year. Production of potatoes is expected to be much larger than last year in all the late-producing States, particularly in the 10 Central States.

Prices of potatoes continued to decline during June and early July as they usually do at this season. With the bulk of supplies coming largely from the intermediate States, market prices are expected to continue to move downward during the next few months. The decline is not expected to be greater than usual.

## FEED GRAINS: Large Crops

On the basis of July 1 crop conditions 1937 production of feed grains promises to be the largest since 1932. Oats and barley crops are practically assured, but corn crop prospects are tentative and may change considerably during the remainder of the summer.

On the basis of July condition, the corn crop was expected to be more than 2½ billion bushels. Total feed grain production was expected to reach 98 million tons, compared with 60 million tons last year and 100 million tons for the 1928–32 average.

If the 1937 corn crop turns out about as large as July 1 conditions indicated, much lower prices are in prospect next fall. Some weakness in corn prices may develop between now and September, but the greatest decline will probably come between September and December. Prices of all feed grains advanced in late June and early July after dropping sharply in the first half of June. The rise was mainly caused by improved wheat prices, together with a scarcity of cash grain. Stocks of corn on farms July 1 were about 156 million bushels, 52 million bushels less than the extremely small stocks 2 years ago. Oat stocks were also very small, although they were somewhat larger than in 1935.

Livestock feeding ratios have been extremely unfavorable for feeding livestock during the last 12 months. They are expected to turn sharply favorable toward the end of this year, if feed-grain crops are as large as now indicated. Until then most farmers will get along as well as they can by utilizing as much pasture and roughage as possible and feeding wheat and other small grains, which are expected to remain relatively cheaper than corn during the summer.

### Index Numbers of Prices Paid by Farmers for Feed

[1910–14=100]

	1936	1937
January.....	94	142
February.....	94	145
March.....	94	144
April.....	93	153
May.....	95	153
June.....	94	147
July.....	114	141
August.....	134	-----
September.....	136	-----
October.....	132	-----
November.....	133	-----
December.....	137	-----



## DAIRY PRODUCTS: Favorable Outlook

A year ago butter prices were high, having moved up sharply through the summer months in reflection of the severe drought conditions throughout the Middle West. After September they declined, contrary to the usual seasonal trend. This year butter prices are expected to follow a more nearly normal seasonal course. Early in July they started moving up, but are not expected to average as high in July, August, and September as they did in those months a year earlier. During the fall and early winter, however, they will probably be higher than they were in 1936.

Dairy producers are in general in a more favorable position than they were a year ago. Pastures are in good condition and prospects are for more normal harvests which will send the price of feed down. Consumer demand for dairy products is stronger than it was a year ago and prospects for the future are favorable.

The seasonal peak in milk production is past. Production on July 1 was about 4 percent less than on June 1 but slightly above July 1 production a year ago. Milk production during the next few months is expected to exceed production in the same period of 1936, but the higher consumer purchasing power this year will tend to offset the effect of the larger production on prices.

Movement of butter into storage in June was larger than a year ago and larger than the preceding 5-year average. Total stocks on July 1, however, were somewhat less than average for the last 5 years. Stocks of American cheese on July 1 were the largest on record for the date and 19 million pounds larger than a year earlier.

The price of butterfat continues low in relation to prices for beef cattle and hogs. Because of these price relationships, there will be a greater incentive during the coming year to expand pork and beef production than dairy production.

## POULTRY: Egg Prices Begin Rise

Prices of eggs have begun the usual seasonal rise to a peak in December. The rise is not expected to be as great as it was a year ago mainly because of the large increase over 1936 in storage stocks of eggs, both frozen and in the shell. The cost of feeding poultry is extremely high in relation to the price of eggs and is expected to continue high through most of 1937, in spite of the expected rise in egg prices. Regardless of these high feed costs, crop reporters continue to report a high rate of production per hen in their flocks. On July 1 for the third month in succession the number of eggs per 100 layers was reported as a record high for the date.

Because of the very small hatch this year, it is expected that egg prices in early 1938 (when production by this year's pullets will be important and storage stocks relatively unimportant) will average higher than those in early 1937.

Prices of chickens may decline during the summer by as much as they did during the same months of 1936 because of the release of the heavy storage stocks of frozen poultry. After September, stocks will be building up again, and any price decline will probably be less than in 1936. By then the effect of the reduction in the hatch will be felt upon poultry marketings.

## HOGS: Cheap Corn?

The outlook for hog prices in the fall and winter hinges predominantly on what happens to the corn crop. If the corn crop reaches the  $2\frac{1}{2}$  billion bushel total indicated by July 1 conditions, supplies of corn for hog feeding will be larger than for several years. A crop of this size would bring sharply lower corn prices, changing the hog-corn price ratio from its present high level to a low level that would encourage hog feeding. With this cheap corn on hand, farmers would delay marketings of spring pigs in order to feed

them to heavier weights than they usually do. They would thus hold many hogs (that would normally be marketed in the fall months) for marketing during the winter and spring. This would reduce the supply of hogs in the fall and tend to lessen the usual seasonal decline in hog prices at that time.

For the entire fall and winter marketing season it is expected, in view of the reduction in the spring pig crop, that farmers will market considerably fewer hogs than they did during those months a year ago. The total live weight of hogs marketed, however, may be about as large as a year ago, since these hogs will be marketed at heavier weights. Since prospects are favorable for a continuation of the present strong consumer demand for meat, hog prices next fall and winter probably will average at least as high as, and perhaps higher than, in the fall and winter of a year ago. Early July hog prices reached the highest level in about 9 years. They are expected to continue high in the late summer and early fall, and may rise some, especially if large numbers of packing sows are held off the market for breeding purposes.

A large corn crop this year will have a further effect upon the hog situation in that it will encourage farmers to increase breeding operations for the spring of 1938. Breeding stock will probably be in strong demand this fall, as will feeder pigs. If a large corn crop is harvested in 1938, the increase in hog numbers will be further stimulated. It is doubtful, however, that hog numbers can be increased fast enough—even with large corn crops for 2 or 3 years—to result in hog slaughter equal to the 1929-33 average before 1940, at least.

## **CATTLE: Smaller Supplies**

Farmers will probably market fewer slaughter cattle during the last half of 1937 than in the same period of 1936, when drought forced many farmers to sell cattle which otherwise would have

been retained on farms. Supplies of the better grades of fat cattle are expected to be particularly short, because reduced supplies of feed grains during the last 12 months have greatly curtailed cattle feeding. Marketings of cattle have been large during the first 6 months of 1937 but have been slightly smaller than the large slaughter in the first half of 1936.

With smaller market supplies in prospect and a generally favorable consumer demand situation, prices of most grades of slaughter cattle are expected to continue at higher levels than a year earlier through the late summer and fall.

If prospects for the corn crop continue favorable, a strong demand for feeder cattle in the Corn Belt is expected to develop in the late summer and fall. Hog numbers are extremely low in the Corn Belt, and that will influence farmers to buy cattle to utilize their corn. If this expected increase in cattle feeding occurs, prices of the better grades of slaughter cattle may decline sharply next winter and spring.

## **SHEEP: Larger Lamb Marketings**

A year ago drought delayed the finishing of lambs for marketing in many areas. This year ranges and pastures generally favor a more rapid finishing of the delayed 1937 lamb crop. Farmers will probably market more sheep and lambs during the next month or 6 weeks than they did during that period last year. If a strong demand for feeder lambs in the Corn Belt develops, however, it may reduce somewhat the supply of slaughter lambs.

The United States lamb crop this year was slightly smaller than last year and a little larger than the 1931-35 average. California and South Dakota reported decreases, but Texas showed a large increase over 1936.

# World Industrial Production At Record Level

**W**ORLD industrial production, as measured by the output of 10 leading international trade countries,<sup>1</sup> reached the highest level in history during the first half of 1937. The pre-depression maximum reached in June 1929 was exceeded temporarily in December 1936, and since March of this year output has continued to exceed the 1929 level.

This recovery in world industrial production has been a significant factor in raising prices of those agricultural products, as well as of other raw materials, whose consumption is influenced by world demand conditions.

When the depression began in 1929, the demand for foodstuffs and raw materials was directly affected. As industrial production decreased, the aggregate amount paid out by industrial employers for wages decreased. Industrial workers therefore had less to spend for food, clothing, and other essentials. At the same time, the amount of agricultural products and other raw materials used in manufacturing was curtailed. The net effect of this reduced demand for foodstuffs and raw materials was reflected in a rapid increase in stocks and a drastic decline in prices of international commodities.

With the value of their exports seriously reduced by the contraction of purchasing power in industrial countries, the countries largely dependent upon income from the production of foodstuffs and raw materials were faced by adverse balances in international trade. This led to the loss of gold and foreign exchange reserves and subsequently to import quotas, currency depreciation, and other barriers to the free flow of international trade. With countries producing foodstuffs and raw materials thus imposing

high barriers against imports, the demand for the output of industrial countries was further curtailed, intensifying the contraction in world industrial output.

As the output of agriculture was maintained at a relatively stable level during the period when money purchasing power was being sharply contracted throughout the world, there was a substantial increase from year to year in the carry-over of major agricultural products. Average stocks of eight international commodities (largely weighted by agricultural products), as measured by the index of the Department of Commerce, reached a peak of approximately 265 (1923-25 average=100) in the middle of 1932.

**A**T THE middle of 1932, when world industrial production reached the depression low point, "6-cent" cotton and "30-cent" wheat represented the cumulative effects of 3 years of declining income in practically all countries of the world. World industrial production had declined 35 percent from the level of 1929. National incomes had declined even more because prices in most countries had declined approximately as much as industrial production.

Since the middle of 1932, when the downward trend of industrial production in most countries was reversed, the increase in world purchasing power, together with reduced production of some commodities, has brought about a marked reduction in the supplies of international commodities. The resulting rise in commodity prices has been reflected in increased money purchasing power of producers of such commodities throughout the world.

The influence of the increased income received by countries producing foodstuffs and raw materials has not been fully reflected in the volume of international trade. Usually as na-

<sup>1</sup> United States, United Kingdom, Germany, France, Italy, Japan, Canada, Belgium, Czechoslovakia, Poland.



## INDUSTRIAL PRODUCTION OF THE WORLD \*

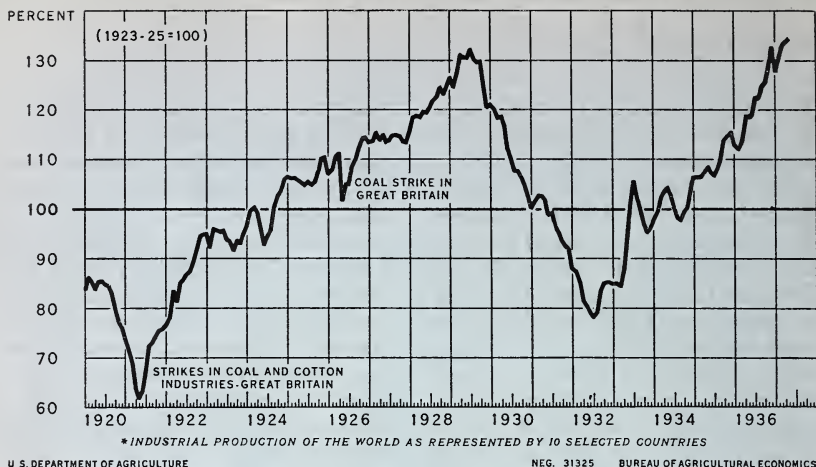


FIGURE 1.

tional income in industrial countries expands this leads to greater imports, which increases the income, and, in turn, the imports of countries producing raw materials and foodstuffs. As indicated above, the contraction in the flow of international payments following 1929 brought about the depletion of gold and foreign exchange reserves and the imposition of trade barriers. Funds received since 1932, as a result of the increased value of exports in many countries, have been used to liquidate old foreign debts, and, to some extent, to the building up of foreign-exchange reserves. The position of countries largely dependent upon the production of foodstuffs and raw materials was in many respects similar to that faced by individual American farmers following the turning point of the depression. The increase in income was not reflected in a corresponding increase in purchases because of the necessity of repaying past-due obligations accumulated during the previous years of declining income. With a further increase in world industrial production and a higher level of international commodity prices, it is logical to anticipate that countries producing raw materials and foodstuffs will become increasingly

important as purchasers of the output of industrial countries.

THE extent of the recovery from the depression low point has varied considerably among individual countries. The high point of industrial production reached in the previous business cycle has been surpassed in the United Kingdom, Germany, and Japan. Countries which depreciated their currencies earliest as a rule have shown the most marked improvement in output. France, which was among the last to devalue, has shown the least recovery of any of the major countries.

In appraising the influence of world industrial production upon the demand for international commodities, the importance of the United States as a consumer of such commodities gives it a dominant position in influencing the level of international commodity prices. As indicated in figure 3, the average annual value of nine international commodities<sup>2</sup> consumed in the United States in 1927-28 was equal to the combined value of the consumption of these commodities in the United Kingdom, France, Germany, and Italy.

<sup>2</sup> Wheat, cotton, sugar, coffee, silk, rubber, tea, copper, and tin.



# INDUSTRIAL PRODUCTION: UNITED STATES AND WORLD EXCLUDING UNITED STATES

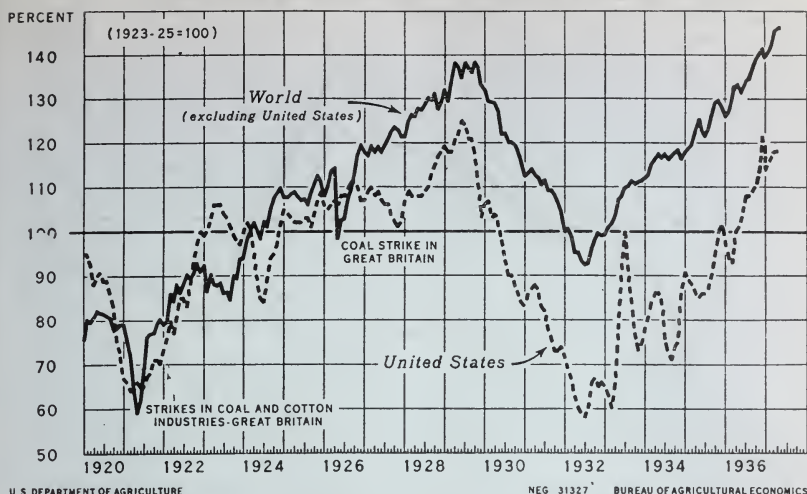


FIGURE 2.

## VALUE OF CONSUMPTION OF NINE RAW MATERIALS AND FOODSTUFFS, AVERAGE OF 1927 AND 1928

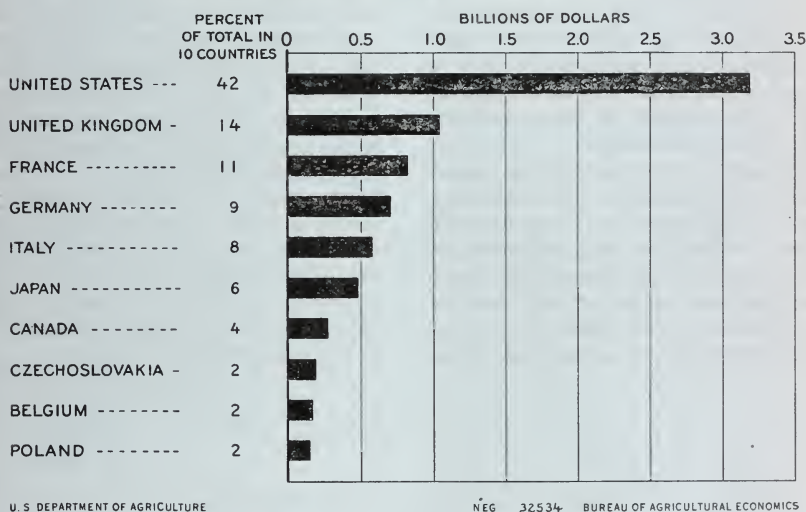


FIGURE 3.

The close relationship shown between the volume of United States industrial production and the quantity of our general imports is shown in figure 4. While our imports have been abnormally increased by adverse drought conditions in recent years, the chart serves to bring out clearly how the demand for the exports of

other countries has been influenced by our industrial activity.

United States exports have not shown as rapid an expansion, relative to pre-depression levels, as have imports. They have been at a much lower level relative to foreign industrial production than prevailed prior to 1930. The percentage increase

# QUANTITY OF GENERAL IMPORTS INTO THE UNITED STATES AND UNITED STATES INDUSTRIAL PRODUCTION, 1920-36

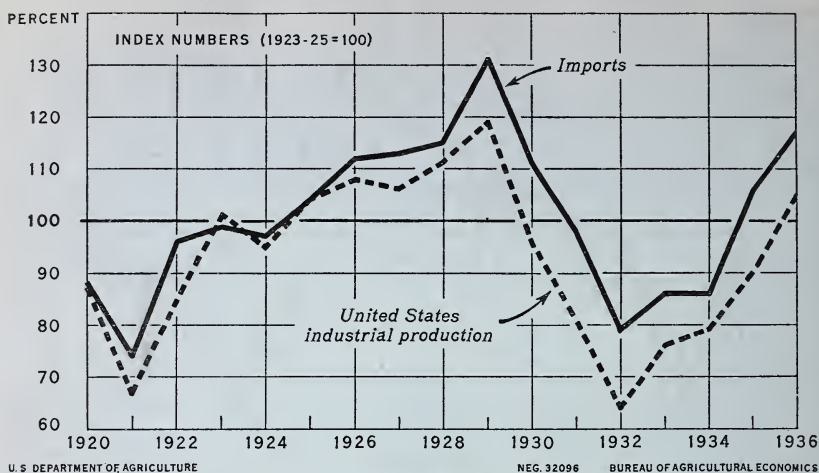


FIGURE 4.—Index of production compiled by Federal Reserve Board; index of imports by Department of Commerce.

from the low levels of 1932, however, has been rapid. This increase in exports has been an important factor contributing to improved industrial production and employment in this country and hence has influenced the domestic demand for farm products and other raw materials.

A part of the recovery in foreign industrial production has been associated with increased military expenditures. When the peak of these disbursements has been passed, the maintenance of a continued high level of world industrial output will be increasingly dependent upon the demand for

finished and semifinished manufactures by countries producing raw materials and foodstuffs. Unless the purchasing power of the latter countries is increased by foreign loans, as occurred during the twenties, some further rise in international commodity prices may be desirable. An additional price rise would tend to cheapen manufactured and semimanufactured goods in terms of foodstuffs and raw materials. Such a readjustment of exchange relationships between various types of goods, commodities, and services would facilitate an increased flow of trade between countries.

NORMAN J. WALL.

## Human Turnover in the Great Plains

"The People of the Drouth States", a report prepared by the Bureau of Agricultural Economics, the Works Progress Administration, and the Resettlement Administration, shows that a considerable turnover of population has always been characteristic of the Great Plains. Between 1863 and 1936 more than 3 million original homestead entries were filed in the Great Plains, but only a little more than half of them were finally completed. The rest were canceled or relinquished. During the depression years 1930 to 1935, 1,600,000 persons moved from towns and cities to farms in this region, and 2,000,000 moved to towns and cities from farms.

# Farm Security

## *V. Security of Land Tenure<sup>1</sup>*

OF THE many elements that enter into any consideration of "Farm Security", land tenure is easily one of the most important. It strikes at one of the most fundamental of relationships—that of the man to the land.

But while important, land tenure alone, whatever the system may be, cannot and will not produce and assure farm security. There is a widespread and mistaken belief that some system of land tenure is the whole answer to the search for security. Beliefs of that kind fail to reckon with such foundation elements as unstable prices and incomes, waves of land speculation, shifts in demand, taxes, rates of interest, and the balance of alternative opportunities between agricultural and industrial pursuits.

A system of inflexible land tenure cannot be the full and final answer in a world characterized by change and flexibility. But this is not to assume that improvement in our present tenure system is unneeded or impossible. The contrary is true. And the need for action has won recognition in terms of national policy. It is in need of wider recognition in terms of State and local policy.

There is little disagreement on the point that long-time and recent trends in the direction of fewer farm owner-operators, more absentee ownership, more tenants, and a decline in the equity in farm lands held by land occupiers are alarming in many instances. There is general agreement that this trend leads in a thoroughly undesirable direction for American agriculture.

For the last 55 years, the entire period for which we have statistics on land tenure, the proportion of tenant farmers has increased steadily in this country. In 1880 only one out of

every four farmers was a tenant, but in 1935 two out of every five were tenants. Even these figures do not present the true picture of farm ownership. Because of debt, the actual equity of operating owners is far less than these figures indicate. In some of our States, the equity of operating farmers is little more than one-fifth. The other four-fifths is in the hands of landlords and mortgage holders.

The depression, with its thousands of farm mortgage foreclosures, which reduced many farm owners to the status of short-term tenants or wage earners focused public attention on the fact that the United States is no longer a country of predominantly owner-operator farmers. Many people have exaggerated the evils of tenancy, simply because its worst evils happened to show up at a time when agriculture generally was in serious straits. It is natural that some people should even place most of the blame for the agricultural depression since the World War upon the land-tenure system. But many other elements figured in the depression and there is strong support for the conclusion that the best land tenure system possible would have been unable to endure the stresses and strains brought about by wartime inflation and succeeding depression.

TENANCY in itself is not to be deplored as much as the things which have gone with tenancy in the past. Our real goal is security of farm tenure, whether by tenants or owners. Insecurity of tenure makes for depletion of soil through overcropping, excessive depreciation of buildings and other equipment, and "erosion" of the farm family itself.

No matter what we do as a nation, we might as well make up our minds that we are going to have a considerable amount of tenancy in this coun-

<sup>1</sup> This is the fifth in a series on farm security.



try for many years to come. During the last 55 years, through fair economic weather and foul, the trend from ownership to tenancy has been remarkably steady. The increase in tenancy has been no sudden development brought about by war, depression, or other temporary economic phase.

Several approaches to the land-tenure problem have been presented in recent years—notably by the President's Committee on Farm Tenancy. Of the many proposals, these seem to have the most promise as workable tools for bettering land tenure conditions:

(1) The working out of greatly improved relationships between landlords, particularly through leases which recognize a third party, the public at

large. These should compensate the tenant for unexhausted improvements, should set up minimum requirements with respect to soil management, and should reward rather than penalize good stewardship of the land.

(2) Public assistance to farm owner-operators, present and prospective, through better credit arrangements and fair interest rates.

(3) Encouragement of plans for variable payments, such as crop payments, which will tend to diffuse the risks of crop production and shifting price levels between buyer and seller.

(4) A continuous program of education to discourage land speculation, excessive land valuation, and over-capitalization of land.

A. G. BLACK

## Consumer Income and Consumption of Poultry

### *II. Changes in Income and the Amount of Poultry Bought*<sup>1</sup>

HOW income affects the amount of poultry bought by families buying poultry is shown in the chart: The higher the income the more poultry bought. These data are based upon a survey of poultry consumption in New York City in March-May 1935 which was part of a broader survey extending to Easter 1936. The data obtained after May 1935 have substantiated those of this chart. The dots shown in this chart represent the average amount of poultry purchased in the week of the interview by all the purchasing families in the same income class. The variation in individual amounts purchased is very much greater than the dispersion of the dots around the line would indicate. This only means that there are many other causes of variation in poultry consumption besides income.

<sup>1</sup> The effect of changes in consumer income on the number of poultry users was discussed in an article in the July 1937 *Agricultural Situation*.

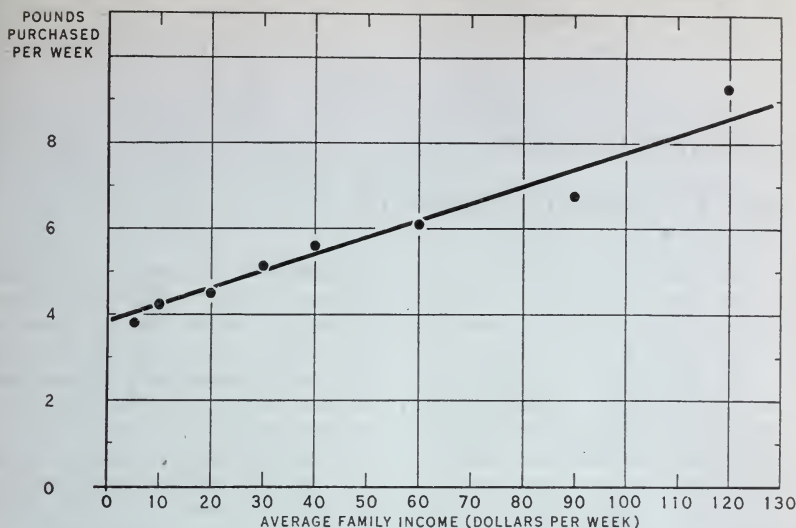
The principal one of these other causes is size of family. Size of family has little influence upon the proportion of users of poultry; it has a very marked influence on the amount of poultry bought by those buying any at all.

Nationality or race, on the other hand, has a great influence on the proportion of users but practically no effect on the amount bought by users of poultry.

Similarly, the effect of price variations is much more important in causing variation in the proportion of users than in causing variation in the amount bought by users of poultry. Once the decision to buy poultry has been made (and this is largely a matter of price, of income, and of nationality or race) the amount to be bought appears to be influenced only by income and size of family, insofar as broad tendencies are concerned. This survey shows that by far the largest



# AMOUNT OF POULTRY PURCHASED AND AVERAGE FAMILY WEEKLY INCOME, NEW YORK CITY, 1935



U. S. DEPARTMENT OF AGRICULTURE

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BUREAU OF AGRICULTURAL ECONOMICS

part of the variation in poultry consumption between individual families is due to individual peculiarities.

Returning to the chart, the level of consumption indicated in it, between 4 to 10 pounds per family per week, is somewhat subject to seasonal influences. Most, though not all, of these data were obtained during Lent. The general level may not, therefore, be characteristic of the whole year. Data for the remainder of the year, however, show that most of the seasonal variation in poultry consumption is due to seasonal variation in the proportion of users—the amount bought by poultry users remaining fairly constant.

**T**HE effect of income on the amount of poultry bought by users differs in an important respect from the effect of income on the proportion of poultry users. This proportion was only affected to an appreciable extent by incomes below the \$46-a-week level. The amount of poultry bought by users, however, is affected by income at all levels and in about the same

way. Thus, a 10-percent increase in the income of a population will tend to increase the amount of poultry bought by users by about 2½ percent, no matter whether the income increase is concentrated either above or below the \$46 a week level or is proportionately distributed to all families.

This conclusion, of course, depends upon the assumption that the effect of a change in income in one family is the same, in the long run, as the effect of a difference in income of the same amount between two families.

Combining these two income effects, this study shows that a 10-percent increase in income reaching all families of a population, would increase the poultry consumption of that population, other things equal, by about 5 percent; if the income increase were concentrated in families with less than \$46 a week income the increase in poultry consumption would be about 7½ percent; if the income increase were concentrated in families with more than \$46 weekly income the increase in poultry consumption in the whole group would be only about

2½ percent. These would be the expected results of income changes alone. The additional effects of price changes, which tend to occur with

income changes, introduce complications for which this New York survey cannot provide the data to answer.

A. STURGES AND G. W. SPRAGUE.

## National Income And Domestic Demand

**I**N THE monthly indexes of national income and of national income exclusive of farm income now available in the Department of Agriculture, we have a broader measure of domestic demand than has been available heretofore.<sup>1</sup> These indexes represent the money income of individuals received in the form of wages, salaries, dividends, interest, rents, incomes from business, and relief. According to the index of national income of all individuals combined, consumers had in June 1937 about 98 percent as much money as during the 6-year period 1924-29, compared with 109 percent at the peak of the boom in 1929 and 56 percent at the bottom of the depression in 1933. The money income of nonfarm consumers was 97 percent of the 1924-29 average in June 1937, compared with 109 percent at the peak in 1929 and 59 percent at the bottom in 1933.

These major fluctuations in the money income of consumers have been accompanied by similar changes in the total retail expenditures for certain food and nonfood items. In the case of foods, an index of retail expenditures for meats and dairy products by the nonfarm population has been prepared for the period January 1921 to date. When compared with the monthly measure of national income exclusive of farm income, a very close correspondence appears in practically all years, with discrepancies of less than

10 percent in 1935-36 and 1921. (See figure 1.) The two indexes are practically identical at the 1929 peak, at the 1933 low point, and in May 1937. The sharp advance in the income index at the end of 1936 represents the distribution of dividends to avoid the tax on undistributed profits. Since most of the dividend disbursements are received largely by persons with relatively large incomes, the concentrated distribution of dividends during the last quarter of 1936 did not have any noticeable effect on increased expenditures for meats and dairy products.

There has also been a close correspondence between the monthly index of national income exclusive of farm income and the Federal Reserve Board index of department store sales, as shown in figure 2. Taking the entire period 1920-37 into account, it appears that department-store sales were higher in relation to the national income and lower in the last 3 years than during the period 1924-29. It is not possible at present to judge the extent to which these departures are due to inadequacies in the indexes or to other factors.

For most food products, an index of the money income of all individuals is undoubtedly the most serviceable measure of changes in domestic demand. For nonfood commodities, such as cotton and other products used in manufacturing, it is of course necessary to resort to other measures of changes in domestic demand, such as indexes of the physical volume of industrial production or business activity.

<sup>1</sup> See *Nonagricultural Income as a Measure of Domestic Demand*, by Bean, Bollinger, and Wells, U. S. Department of Agriculture, June 1937. The monthly index of nonagricultural income is published currently in the *Agricultural Situation*. See page 29 this issue.

# NATIONAL INCOME, EXCLUDING AGRICULTURAL INCOME, AND RETAIL EXPENDITURES FOR MEATS AND DAIRY PRODUCTS

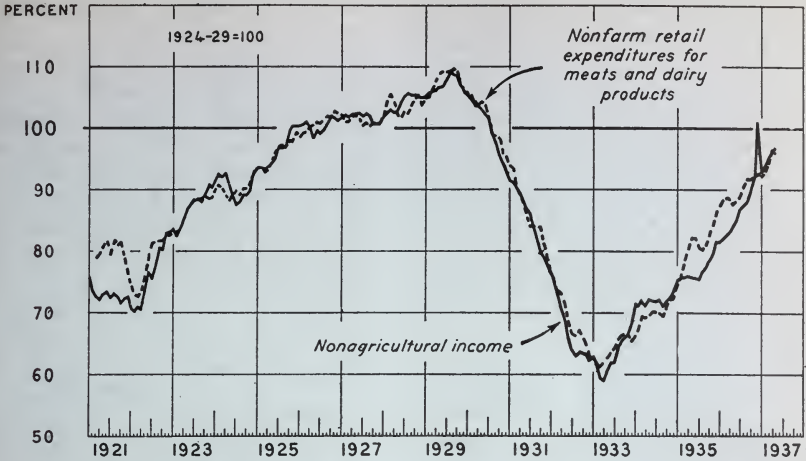


FIGURE 1.

# NATIONAL INCOME, EXCLUDING AGRICULTURAL INCOME, AND DEPARTMENT STORE SALES

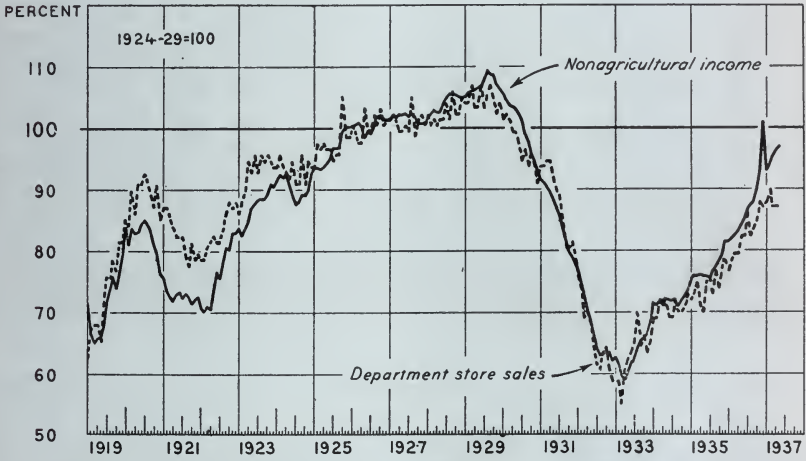


FIGURE 2,

The entire food bill of the country, bears a fairly constant relation to the total national income. Annual retail expenditures for food have been estimated from Department of Commerce data for the years 1929 to 1936. To these estimates have been added the

Department of Agriculture estimates of the farm value of food produced by farm families for consumption in the home. The total is a fair approximation of the retail value of food consumed annually in the United States. The following table shows the per-



centages which retail food expenditures were of the total national income in recent years:

1929.....	21.1
1930.....	21.4
1931.....	22.2
1932.....	22.7
1933.....	22.3
1934.....	21.4
1935.....	21.7
1936.....	20.7

During the depression years of 1931-33, a somewhat larger proportion of the national income was spent for

food than in 1929 or in 1936, but for the entire period the percentages varied only between 20.7 (in 1936) and 22.7 (in 1932).

As a larger proportion of the total population receives larger incomes, the percentage of the national income spent for food may be expected to decline, but this change will undoubtedly continue to be a gradual one, so that the national income will remain as a useful measure of domestic demand for food products.

L. H. BEAN.

### Nonagricultural Income

[Seasonally corrected indexes, 1924-29 = 100]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1919....	70.8	66.4	65.2	65.9	66.3	68.3	72.0	74.0	76.0	74.0	76.8	79.6	71.3
1920....	84.0	81.1	83.8	82.9	83.3	84.6	85.2	84.6	83.7	81.1	79.8	76.4	82.5
1921....	75.9	73.5	72.6	71.9	72.9	73.4	72.4	73.2	72.6	71.5	72.3	72.6	72.9
1922....	70.8	70.2	71.0	70.6	73.7	76.7	75.6	78.0	80.6	80.2	83.0	83.1	76.1
1923....	83.8	82.5	84.0	84.9	86.9	87.6	88.3	88.6	88.6	89.3	90.9	90.4	87.2
1924....	91.7	92.6	92.1	92.7	90.8	88.9	87.6	88.1	89.3	89.2	90.0	92.7	90.5
1925....	93.6	93.6	93.4	93.8	94.3	95.1	96.9	96.9	97.1	99.7	100.3	100.3	96.2
1926....	100.3	100.6	101.0	100.3	98.4	99.7	99.1	99.8	100.9	101.9	101.6	101.3	100.4
1927....	101.6	102.2	101.8	102.3	102.3	102.4	102.0	102.4	102.0	100.7	100.7	100.7	101.8
1928....	101.8	102.4	103.1	102.6	102.6	104.4	105.2	105.7	105.4	105.5	105.3	105.0	104.1
1929....	105.1	105.7	105.9	106.2	106.5	106.9	108.0	109.3	108.7	108.6	107.1	106.3	107.0
1930....	105.5	104.6	103.7	103.4	103.2	102.2	101.2	99.3	98.2	96.2	94.6	92.8	100.4
1931....	91.5	91.2	90.5	89.7	88.3	87.0	85.7	83.6	81.8	79.9	79.0	77.7	85.5
1932....	76.8	75.2	73.2	71.0	68.9	66.2	64.0	62.9	63.6	63.5	63.4	62.3	67.6
1933....	62.6	61.5	59.4	58.9	60.3	61.9	62.0	63.9	65.3	65.8	66.6	68.4	63.0
1934....	71.5	71.1	71.9	71.2	72.2	71.9	71.8	72.1	71.0	71.8	72.5	73.5	71.9
1935....	75.4	75.9	75.8	76.1	75.8	75.7	75.5	76.7	77.3	78.4	79.3	81.5	77.0
1936....	81.5	81.9	82.5	83.1	84.1	85.1	86.8	87.4	87.9	89.8	92.6	100.9	87.0
1937....	92.9	93.9	95.3	96.3	96.9	-----	-----	-----	-----	-----	-----	-----	-----

Nonagricultural income during the 1924-29 base period averaged approximately \$5,539,000,000 per month. These indexes are a revision of those on page 25 of the bulletin, Non-Agricultural Income as a Measure of Domestic Demand. The changes were made in line with the 1937 revisions of the national income estimates of the Department of Commerce.

The Hessian fly takes an average annual toll of wheat equal to the consumption of New York, Chicago, Philadelphia, Detroit, and Los Angeles.

Fully 700,000,000, or nearly half the chicks hatched annually, today are produced by commercial hatcheries.

Tenancy has been reduced in Ireland from 97 percent to 3 percent in the

last 70 years. During the last 35 years tenancy in Denmark has been reduced to about 5 percent.

Farm laborers are young compared with other occupational groups, according to a recent survey in 11 States. More than one-third of the farm laborers interviewed were between 20 and 29 years old, and two-thirds were less than 40 years old.



# Preparations for Recovery In the Great Plains

(No. 1 in a series)

FIVE consecutive years of crop failure or near crop failure have left individual farmers and even entire communities in certain sections of the Great Plains in a financially exhausted condition. Distress has been widespread in the Great Plains drought area and has been acute in certain localities. There has been an exodus of many families. The farmers who remain on the land are working and waiting for a return of conditions more favorable to crop production. They face the problem of preparing themselves to take advantage of more favorable conditions, although many need financial assistance to sustain their families and to maintain their working capital until those conditions return.

Droughts are no new experience in the area but existing records show no period when so wide an area was affected for so long a time. Perhaps the most nearly comparable climatic conditions occurred during the late eighties or early nineties, soon after the land in some areas was homesteaded but before many of the areas now under cultivation were closely settled. The settlers of the early periods, with little reserves, limited credit, and little public assistance, abandoned their farms in great numbers. Those who remained and those who came later slowly developed the region for agriculture.

In many respects the situation during 1932-36 was worse than during the earlier periods. Coinciding with a period of economic depression and low prices, the beginning of the drought period found farmers in many sections with low financial resources. The failure of feed crops, exhaustion of feed reserves, and in extreme cases the drying up of the water supply forced the liquidation of livestock. Much of the cash income in 1934, for instance, came from reduction of live-

stock inventories. If less land had been put into crops, damage to land from wind erosion would have been less severe and less general.

ACCORDING to a survey made in 1935 by the Bureau of Agricultural Economics and the Federal Emergency Relief Administration, the situation was serious in the stricken sections, but not all parts of the Great Plains were seriously affected. In selected counties located in the eastern portion of the Dakotas, southwestern Nebraska, eastern New Mexico, and western Texas, both rainfall and crop yields had approximated the long-time average during most of the period. In such counties there was little distress and consequently few farmers needed relief, but in most of the other selected counties, from one-fifth to one-third of the farmers, and in extreme cases more than four-fifths of the farmers were on emergency relief rolls. Livestock numbers had been reduced—cattle by a third to a half, poultry by a third to two-fifths, and swine by one-half to three-fourths. Buildings and machinery were badly depleted. Many farmers were heavily in debt and in arrears in payments of both interest and taxes. And in one of the selected counties located in the "dust bowl", wind erosion had damaged severely nearly half of the crop land. With little or no income from their farms and with their reserves and capital exhausted, it was only their access to the relief rolls, benefit payments, Rural Rehabilitation loans and grants, and feed and seed loans that enabled many of these farmers to remain in the area.

Apparently, an inadequate size of operating unit was one factor contributing to the farmers' need for assistance. In those counties where distress was prevalent the operators of small farms comprised the bulk of the

relief load. In such counties more than half of the farms were smaller than that which the farmers themselves estimated as the minimum size needed to produce a family living. While in the counties where distress was least acute, most of the farms were at least as large as this minimum size.

Even in the more fortunate sections where complete crop failures occurred only 1 year or in which some crop was produced each year, many farmers turned to Government agencies for help. The primary need in these sections was for livestock feed and cash loans to carry the farmer through the next crop season. In some sections of the Great Plains there was little demand for even this assistance.

**B**UT in the areas experiencing consecutive crop failures, not only is temporary financing needed but further help in reestablishing a producing unit seems essential. This means, in some instances, repair or replacement of worn out equipment; in others, supplying work stock or tractor power; and in some, possibly even the repair of buildings before farming operations can be continued. Then when crops are produced and feed is available it will mean assistance in obtaining breeding livestock, particularly cattle and hogs, for although breeding livestock numbers are sufficient to rebuild herds in most areas, some farmers have few livestock or none at all.

A major requisite in the rehabilitation of farmers in some portions of the Great Plains is a general land-use readjustment. Shifting crop acreage susceptible to wind erosion to permanent pasture would not only alleviate damage to crops and soil from that source, but it would provide a diversity

of both operations and income by providing a more reliable source of livestock feed. For such a shift in land use to be feasible, many farmers would need additional acreage. An increase in the size of small operating units would lessen the necessity of maintaining such a high proportion of land in crops as has been done in recent years, and it would give the operators a better opportunity to accumulate feed reserves for use in future periods of drought.

The extension of vast amounts of production credit in the area during the past 5 years has enabled many farmers to continue their operations. But, if these and previous investments in the area are to be protected and if the natural and human resources of the area are to be conserved, the farmers must be returned to a condition better than merely self-supporting. Much distress similar to that of the recent period and additional financial losses may be avoided during future adverse periods through the reorganization of farms and an adjustment in the size of units to conform with the productive possibilities of the area.

An upward adjustment in the size of farms will in some instances necessitate a smaller population. Migration of farmers from many of the stricken sections indicates that in some portions of the region such an adjustment has already begun. In some areas emigration may have been sufficient to permit a desirable adjustment in the size of farms without further decrease in population.<sup>1</sup>

H. L. STEWART.

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<sup>1</sup> Population problems in the Great Plains will be discussed in more detail in a forthcoming article in the *Agricultural Situation*.

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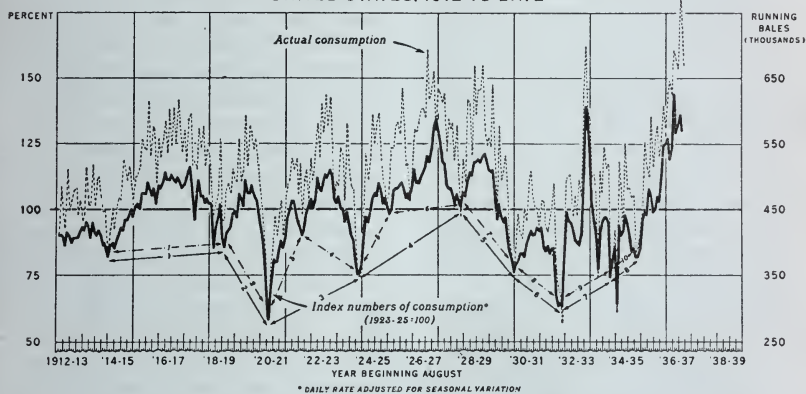
The national birth rate dropped in 1936 for the second consecutive year, and was only one-tenth of a point above the all-time low established in 1933. There were 2,136,059 births registered in the United States last year, resulting in a birth rate of 16.6 live births per 1,000 estimated population. The all-time low established in 1933 was 16.5. In 1934 the rate rose to 17.1 but declined in 1935 to 16.9.

# Cycles in Cotton Consumption

THE high level of domestic cotton consumption in recent months (11 percent larger for the 11 months ending June 30 than in any like period on record) has created considerable interest and discussion in the outlook for cotton consumption. In this connection, it is of interest to analyze the question of whether cotton consumption moves in cycles—and particularly to examine the “2-year cycle” in cotton consumption, which has been referred to on several occasions in recent years.

which has been reduced to a daily basis and adjusted for seasonal variation, it will be seen that since 1914 there have been 10 times (upper set of arrows) in which the fluctuations completed a cycle. In selecting the troughs, or low points, marking the beginning and end of these cycles, the first cycle is assumed to have begun in August 1914, since the lack of data prior to September 1912 makes it impossible to determine satisfactorily where the cycle ending in August

COTTON: CONSUMPTION AND INDEX NUMBERS OF CONSUMPTION, UNITED STATES, 1912 TO DATE



U. S. DEPARTMENT OF AGRICULTURE

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From the accompanying chart it may be seen that since the latter part of 1914 there have been a number of times in which United States cotton consumption advanced from a fairly pronounced low point to a fairly noticeable high point and then declined to another low point, completing what might be called a cycle.<sup>1</sup> In attempting to determine the cyclical movements in a given series of data, however, it is generally agreed that seasonal variations should first be removed. Using the Federal Reserve Board's index of cotton consumption,

1914 started. It should also be noted that in two or three instances (such as from December 1920 to June 1924 and from June 1924 to July 1928) there is considerable question as to whether a given period should be divided into two cycles or one. However, when the index for the period since 1914 is divided into 10 so-called cycles, the average duration of each is 25 months, or about 2 years. It was apparently such a division as this which resulted in the references in recent years to “the 2-year cycle” in United States cotton consumption.

<sup>1</sup> Cycle as used here, and apparently as used quite generally by economists, refers merely to recurring periods in which there have been advances from one trough to a peak and a decline back to another trough. As will be seen from the discussion, these troughs and peaks in cotton consumption not only occur at irregular intervals but vary greatly in amplitude.



WHEN the cotton consumption index for the period from 1921 to 1928 is divided into two cycles and the other periods divided as indicated in the chart (lower set of arrows) there are six cycles between 1914 and 1932. The average duration of these cycles is 3 years instead of 2. The maximum duration of any of these six cycles was a little over 4 years and the minimum slightly less than 2. Assuming that there was a complete cycle in cotton consumption between the summer of 1932 and the summer or fall of 1934<sup>2</sup> and still another between that date and the following summer, this would make the seventh and eighth complete cycles since 1914. It would reduce the average duration for the seven cycles to 34 months and the average for the eight to 32 months. The shortest of the eight cycles would be the last one which was only 13 months in length. (See table.)

The great variations in the lengths of the cycles have been associated with great irregularities in the lengths of the periods of expansion and contraction. When the index of cotton

<sup>2</sup> The low point in 1934 occurred in September, but during that month there was a general strike in the cotton goods industry which greatly reduced mill activity. Without the strike it seems likely that the 1934 low point in the cotton consumption index would have occurred in June.

consumption for the period since 1914 is divided into eight cycles, periods of expansion averaged 20 months in length and varied from 7 to 39 months. The periods of contraction averaged 12 months in length and varied from 6 to 16 months. The extent of the expansions in the index from one cycle to another has varied from 20 to 117 percent and the degree of contraction from 16 to 48 percent.

It is generally agreed that the index of industrial production (general business conditions) tends to reflect changes in consumer demand for cotton clothing and household articles and changes in the industrial demand for cotton. For this reason and the fact that changes in cotton prices have a comparatively small influence on the quantity of cotton goods actually consumed in the United States, the index of industrial production is one of the most important factors affecting the fluctuations in domestic cotton-mill consumption. Speculative purchases on the part of distributors, industrial users, and to some extent ultimate consumers also are of importance, particularly with respect to the short-time fluctuations. This is illustrated by developments in the first half of 1933 when large speculative purchases occurred in anticipation of higher cotton-textile prices as a result

United States Cotton Consumption Cycles<sup>1</sup>

Cycle no.	Dates of troughs and peaks			Duration of each phase of cycle			Degree of movement	
	Initial trough	Peak	Terminal trough	Expansion	Contraction	Full cycle	Expansion	Contraction
	<i>Month and year</i>	<i>Month and year</i>	<i>Month and year</i>	<i>Months</i>	<i>Months</i>	<i>Months</i>	<i>Percent</i>	<i>Percent</i>
1.....	Aug. 1914	Nov. 1917	Mar. 1919	39	16	55	41	27
2.....	Mar. 1919	Jan. 1920	Dec. 1920	10	11	21	31	48
3.....	Dec. 1920	May 1923	June 1924	29	13	42	98	35
4.....	June 1924	July 1927	July 1928	37	12	49	79	25
5.....	July 1928	June 1929	Aug. 1930	11	14	25	20	37
6.....	Aug. 1930	<sup>2</sup> Aug. 1931	<sup>2</sup> June 1932	12	10	22	22	31
7.....	<sup>2</sup> June 1932	June 1933	<sup>3</sup> June 1934	12	12	24	117	47
8.....	<sup>3</sup> June 1934	Jan. 1935	July 1935	7	6	13	32	16

<sup>1</sup> Based on the Federal Reserve Board's monthly index of cotton consumption adjusted for seasonal variation. The cycles shown here were rather arbitrarily selected. In some instances it might readily be argued that one of these cycles should be considered as two, as, for instance, cycles 3 and 4.

<sup>2</sup> Actually the index was the same in July and September 1931 and the same in May and July 1932. The index for these 2 months was used in each case in calculating the degree of expansion and contraction.

<sup>3</sup> June 1934 used in place of September due to widespread strike in September.



of the decline in the gold value of the dollar, cotton-production control, the cotton-processing tax, and increased wages brought about by the National Recovery Administration.

In view of the great irregularity of the fluctuations in United States cotton consumption and in general business conditions, the past cyclical fluctuations in domestic cotton-mill consumption do not constitute a very satisfactory basis for forecasting the future. However, the average duration of the expansion phases of the last eight cycles in the index of mill consumption (20 months), together with the fact that the index has declined materially from the high point reached last December, suggests that the 17 months from July 1935 to December 1936 probably constitute the expansion phase of the most recent cycle. If so, then July represents the seventh month of the contraction phase of this cycle, the duration of which will probably depend largely upon develop-

ments with respect to domestic business conditions, consumer incomes, and the effect of these and other factors on cotton prices and mill consumption.

It should be pointed out, however, that the average value of cotton consumed by mills this season has been lower than in the 11 seasons prior to 1930-31. This has been true in spite of the high level of mill consumption and even though the index of industrial production has averaged 18 percent higher than in those years. Even when adjusted for changes in the general price level, manufacturers' expenditures for cotton during the 1936-37 season have been lower than in any of the seasons between 1916-17 and 1928-29, except during the 1920-22 depression and in 1926-27. The same was true of consumers' expenditures for cotton goods, assuming no material change in manufacturing and distributing margins.

MAURICE R. COOPER.

## Complaints Against American Cotton Abroad

AMERICAN cotton is without doubt the most desirable of all cottons—particularly American cotton of the "bread and butter" class of staple—up to  $1\frac{1}{16}$ - or  $1\frac{1}{8}$ -inch length. Most spinners prefer it for its uniformity, its strength of fiber. But . . .

English and European spinners have for years been complaining about bales received from this country. American cotton, they say, frequently is false-packed with a lower grade of cotton in the middle of the bale than on the top and bottom.

Other complaints: Mixed packed bales (one grade on top, another on the bottom); oily bales; water-packed bales (wet cotton weighs more than dry); sand-packed bales; bales with wood and metal remnants; bales with pieces of old cloth, felt hats, leather, paper; poorly bagged bales, use of

sisal bagging and twine; unkempt appearance of American bales generally; country damage (mildewed cotton and discoloration); tie buckles (in metal bands which surround bales); the use of indelible ink or tarlike paint in stenciling bales.

Because of the recurring complaints from foreign cotton spinners, the Bureau of Agricultural Economics made a survey of English and continental mills. Visits were made to nearly 100 mills in England, and complaints were investigated in Denmark, Sweden, Germany, Switzerland, Czechoslovakia, Austria, Hungary, Yugoslavia, Italy, Spain, France, Belgium, and Holland. Before and after this foreign survey, visits were made to many American mills.

Most complaints on the condition of United States cotton bales, from

American as well as foreign mills, come from those using grades below Middling. Such countries as Denmark, Sweden, Holland, France, Spain, and Switzerland which use mostly Middling and above, make fewer charges against our cotton than countries using lower grades. England uses most of the exported Middling and below, and most complaints are from England.

No complaint is made against any one State or region, bad bales having been found from every State. Since the majority of our cotton exports originate in Texas and Oklahoma, however, most of the allegations from abroad pertain to these States.

False-packed or "sandwich" bales are obviously intentional and deliberate fraud. Either the ginner deliberately false-packs by first ginning some good cotton, then some lower grade, and finally some better grade again for the top of the bale, or the farmer so loads his wagon with seed cotton as to accomplish the same result.

**M**Ixed packed or two-sided bales, on the contrary, are seldom a result of intentional fraud. Farmers may combine half bales of different grades, or the ginner may combine cotton of different grades when he hasn't sufficient quantity of either to make a bale. If cotton picked early is combined with cotton picked late, the later picking will be of lower grade, depending upon the time elapsed between pickings. General practice in American mills is to sample both sides of a bale, but in England and on the Continent many mills sample only one side, so that frequently a spinner finds he has bought a two-sided bale at the value of its higher grade side.

The use of sisal bagging and twine has caused considerable complaint because tough sisal fibers cause a break-down of the cotton threads, much additional labor, and other technical spinning difficulties. It is reported that a strike occurred in a mill at Renaix, France, until all sisal-covered bales were rejected or removed.

The common practice in this country is for each possible buyer of a bale of cotton to slash sample holes in the bagging. This necessitates rebagging and patching, which adds to the weight of the bale covering to such an extent that it frequently amounts to as much as 6 percent of the total bale weight. Even with this large tare much of the bale is often uncovered. This is in striking contrast to the tare on Egyptian, Indian, African, and Brazilian cottons, all of which are completely covered with a much smaller percentage of bale covering.

Damaged and false-packed bales make up a very small part of our total cotton exports (most estimates place the proportion of false-packed bales at less than 1 percent). But they are sufficiently numerous to require that something be done about improving the appearance and condition of our cotton bales. With the gradual increase in production and exports of cotton by other countries, such action becomes more and more necessary. Perhaps the most important way to improve our cotton bales would be to permanently identify every exported bale so that it could be traced to its original source. At present a large number of bales have lost all gin tags when delivered abroad.

FRED TAYLOR.

# Who Holds the Farm Mortgage Debt?

ONE and one-half billion dollars were wiped off the farm real estate debt in the United States from January 1, 1930, to January 1, 1935. The total debt in 1930 was 9.2 billion dollars and in 1935 was 7.6 billion dollars. The following table shows comparisons of the mortgage debt by regions for January 1, 1930, and January 1, 1935:

	<i>Jan. 1, 1930</i>	<i>Jan. 1, 1935</i>	<i>Percent change</i>
United States.....	9,214	7,645	-17
New England.....	152	182	+20
Middle Atlantic.....	461	410	-11
East North Central.....	1,851	1,533	-17
West North Central.....	3,502	2,676	-24
South Atlantic.....	455	402	-12
East South Central.....	379	349	-8
West South Central.....	1,044	878	-16
Mountain.....	534	462	-13
Pacific.....	837	754	-10

<sup>1</sup> This increase represents to a considerable extent an increase in the number of farms included in the 1935 census as compared with 1930.

And along with this decrease in the farm real estate debt came a marked shift of indebtedness to Federal credit agencies. On January 1, 1928, the Federal land banks held about 12 percent of the estimated farm-mortgage debt as compared with 23 percent for the insurance companies. By January 1, 1935, the Federal land banks and the Land Bank Commissioner held 33 percent of the reduced total and insurance companies held only 16 percent.

Banks held a slightly smaller percentage of the total in 1935 than in 1928. Individuals were also of less importance as a source of farm-mortgage credit in 1935 than in 1928. The following table shows the percentages of the farm real estate debt held by different lenders on January 1, 1928 and January 1, 1935:

	<i>Percentage of total held—</i>	
	<i>Jan. 1, 1928</i>	<i>Jan. 1, 1935<sup>1</sup></i>
Life insurance companies.....	22.9	16.3
Federal land banks.....	12.1	32.7
Land Bank Commissioner.....	—	
Commercial and savings banks.....	10.8	9.0
Mortgage companies.....	10.4	3.4
Joint-stock land banks.....	7.0	3.4
Individuals.....	29.6	24.6
Others.....	7.2	10.6
Total.....	100.0	100.0

<sup>1</sup> Preliminary.

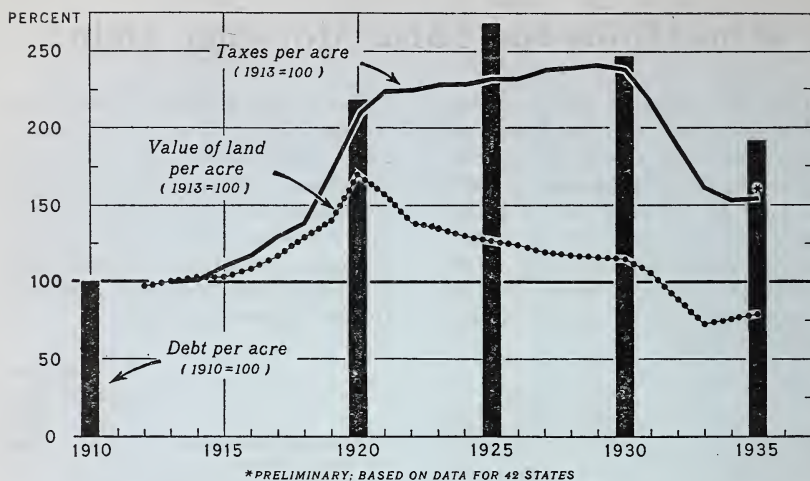
The figures for mortgage companies are probably slightly too high in both years, as some farmers report debt owed to a mortgage company which has been transferred to a life insurance company or a savings bank.

The rise in the proportion of the debt held by Federal agencies reflects both the heavy liquidation of debts owned by other agencies and the large volume of loans by Federal Land Banks and the Land Bank Commissioner. Total loans of the Federal Land Banks at the beginning of 1933 were lower than in 1928, but during the following 2 years these banks increased their loans by almost 780 million dollars, or 70 percent. By the beginning of 1935 the Land Bank Commissioner had outstanding 617 million dollars in farm mortgage loans. From May 1, 1933, through September 30, 1934, more than 70 percent of the proceeds of the Federal Land Bank and Land Bank Commissioner loans were used to refinance real estate mortgages held by other lenders.

Farm-mortgage debt figures by States for 1930 and 1935 are contained in a joint release by the Bureau of the Census of the Department of Commerce and the Bureau of Agricultural Economics of the Department of Agriculture, entitled "Farm Mortgage Indebtedness in the United States."



# MORTGAGE DEBT PER ACRE, VALUE OF LAND, AND TAXES ON FARM REAL ESTATE



U. S. DEPARTMENT OF AGRICULTURE

NEG 32484 BUREAU OF AGRICULTURAL ECONOMICS

IT IS probable that some further decline in the total farm-mortgage debt has taken place since January 1, 1935. A further rise in the mortgage holdings of Federal credit agencies has occurred also since that time. Thus the proportion of the farm mortgage debt now held by Federal agencies is substantially higher than in 1935. It is probable that when debt estimates for 1937 are completed the holdings of these agencies will be shown to equal around 40 percent of the total farm mortgage debt.

The accompanying chart shows the trend of farm-mortgage debt per acre (all land in farms) together with the trend of land values and farm taxes, from the pre-war period through 1935. Farm real estate shouldered an increasingly heavy debt from 1910 to 1920, particularly in the latter part of the decade. The increase in debt was associated with rapidly rising land values, active land transfers, and generally expanding agricultural operations during the World War. The farm-mortgage debt continued to increase after 1920, but at a slower rate. A large part of the increase during the 1920-30 decade occurred in the years immediately following 1920. The farm-mortgage debt reached a peak

around 1927 or 1928. It decreased gradually from 1927 until 1930 and then decreased rapidly until 1935.

A small part of the debt reduction from 1930 to 1935 took place by the normal process of repayment of loans, although it is probable that this was a small factor in the total decline. The big factor in the debt reduction was the drastic decline in farm incomes and land values which forced distress liquidation through loss of farms by foreclosures and similar transfers.

As an offset to the reduction of debt, some forces were working toward increasing indebtedness during the depression. Many farm owners were able to make new loans or increase existing indebtedness to tide them over the years of reduced income. At the beginning of the depression there were many farm owners who had no mortgage debts whatever, and many others whose farms were not heavily encumbered. Both of these groups were in a position to borrow on their land. Nearly 60 percent of all full-owner farms were free of debt in 1930 and the extent to which mortgaged farms were encumbered varied widely. An even higher percentage of tenant-operated farms were free of debt. After the establishment of the Farm Credit Ad-

ministration, many farm owners were able to borrow on their farms to pay delinquent taxes and interest, to fund previous short-term borrowing, and to finance current operations. Another factor tending to increase mortgage

indebtedness was the practice of many banks to require mortgage security for loans which in normal times would have been granted on an unsecured basis.

DONALD C. HORTON.

## Farm Wage Rates Rise as Prices Climb

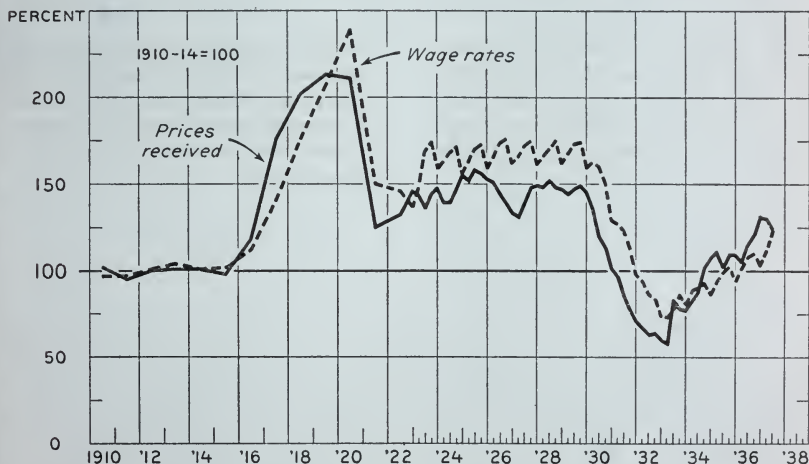
**W**AGE rates paid by farmers on July 1 were still low in comparison with prices received for farm products, although they were about 14 percent above rates paid at the same season last year. If farm wage rates rise in response to increases in the prices of farm products and farm income, as would be expected from the experience of past years, they may be expected to show a further substantial increase during the next 12 months.

Daily and monthly wage rates paid by farmers have not, as a rule, changed simultaneously with prices of farm products during the last 25 years, but have tended to respond more slowly to changes in economic conditions. A moderate increase in prices, however, has usually been followed by an upturn in farm wage rates from 6 months to a year later. In past years when

prices were declining, some farmers paid more for help to grow crops than the crops were worth after harvest, or more than was obtained some years later from the livestock to which the crops were fed. On the other hand, in periods of rising prices, some of the farm products being sold brought good prices compared with the rate of wages paid to produce them. Very sharp increases or breaks in the general level of prices have affected farm wage rates somewhat more quickly, although the upswings in agricultural prices that have resulted from drought shortages have not quite caused corresponding increases in wage rates on farms.

During the 35-year period ending in 1930 farm wage rates rose slightly faster than prices of farm products. During the same period an upward trend was evident in the quantity of

PRICES RECEIVED BY FARMERS, AND FARM WAGE RATES, 1910-37



farm products produced per hour of labor. During the 15 years from 1910 to 1925, wage rates paid farm workers increased 70 percent while the prices of farm products increased only 47 percent. During the 15 years from 1895 to 1910, wage rates increased 56 percent and prices around 50 percent. If the general tendency for farm wage rates to increase faster than prices received had not been disturbed by the marked increase in the supply of workers during the recent depression, present farm wage rates would likely have been very much higher than those now prevailing. With prices of farm products averaging 124 percent of pre-war on June 15, however, farm wage rates were only 123 percent of pre-war.

The failure of wage rates to retain the average spread of about 16 percent over prices received after the late twenties may be ascribed to several causes. Wage rates paid farm labor depend not only on the prices obtained for agricultural products, but also on the spread between receipts and the fixed costs of production, on the supply of workers available for hire, and on the volume of output per worker. Instead of continuing to increase, output per worker appears to have been sharply reduced during the last few years, partly by drought,

partly by a plentiful supply of labor, and partly by the inability of farmers to continue to purchase the usual quantity of labor-saving equipment.

THERE now seems reason, however, to expect farm wage rates to rise more rapidly, and perhaps even much more rapidly than the prices of farm products. Growing conditions this year are nearly normal. Purchases of labor-saving farm machinery have increased markedly. Industrial employment is increasing and there is complaint of a shortage of farm labor in many areas. The trend of farm wage rates has been continuously upward, except for seasonal variation, for 4 years and is now 58 percent higher than in July 1933. At the same time farm wage rates, at 123 percent of pre-war, are very low as compared with the general average of other wage rates which are now about 219 percent of what they were just before the war. If industrial recovery continues to take up the slack of unemployment during the next few years, as seems probable, farmers are likely to have difficulty in retaining the usual number of competent hired helpers except at rates that only efficient farmers can afford to pay.

R. F. HALE and J. B. SHEPARD.

The death rate for the United States in 1936 was 11.5 per 1,000 estimated population, the highest since 1929. The rate in 1935 was 10.9. Total deaths numbered 1,474,177 in 1936.

Egypt has the highest birth and death rate in the world and is growing rapidly, according to a recent study. Its population now exceeds 15 million, or twice the estimated population of ancient Egypt.



## Demand Continues to Improve

**T**HOUGH improvement shown by the various measures of domestic demand has been somewhat less pronounced for the last 2 months than was generally true for the 14-month period from February 1936 to April 1937, on the whole an upward trend has continued. Considering the June relapse in industrial production, following a 3-month period in which no change was reported, and the adverse effects on labor income of strikes in certain of the heavy industries, the continued upward trend in nonagricultural income is clearly indicative of a strong underlying demand situation. The immediate major labor troubles have now been settled and productive activity, according to weekly indexes, has again turned upward.

Monthly estimates of nonagricultural and national income, bringing them into agreement with revised Department of Commerce annual figures released in June, show a some-

what better recovery from the depression lows than was indicated previously. Nonagricultural income, adjusted for changes in population and living costs, was higher in June 1937 than in any corresponding month since 1919, which is as far back as we have monthly records. A gain of 10 percent in per capita real income of the nonagricultural population for the first half of 1937 as compared with the corresponding 6 months of last year is indicated by the revised indexes.<sup>1</sup>

Farm income has increased along with that of the nonagricultural population as evidenced by a gain of 12 percent in cash income from farm marketings during the first half year. The continued gains in per capita nonagricultural income serve to moderate the downward price adjustments for those products the output of which is this year more nearly normal.

P. H. BOLLINGER.

<sup>1</sup> A table containing recently revised indexes of total nonagricultural income appears on page 18. Tables containing the revised per capita data may be obtained on request.

### Measures of Domestic Demand

[1924-29=100]

	June				Percent change		
	1929	1933	1936	1937	1936-37	1933-37	1929-37
Nonagricultural income:							
Total.....	106.9	61.9	85.1	97.2	+14	+57	-9
Per capita.....	101.6	57.3	76.5	86.6	+13	+51	-15
Factory pay rolls:							
Total.....	108.7	47.0	79.3	100.5	+27	+114	-8
Per employed wage earner.....	102.7	66.4	87.6	98.8	+13	+49	-4
Industrial production:							
Total.....	117.0	85.2	97.4	107.3	+10	+26	-8
Factories processing farm products.....	108.6	117.2	99.6	108.9	+9	-7	-0
Other factory production.....	123.8	70.6	97.5	104.7	+7	+48	-15
Construction activity:							
Contracts awarded, total.....	104.1	14.9	43.0	49.6	+15	+233	-52
Contracts awarded, residential.....	85.1	11.6	32.2	38.5	+20	+232	-55
Employment in production of building materials.....	94.6	37.2	54.9	62.9	+15	+69	-34
Cost of living:							
Food.....	99.9	62.5	80.7	83.1	+3	+33	-17
"All other items".....	97.8	80.3	81.9	84.3	+3	+5	-14
Purchasing power of nonagricultural income per capita:							
For food.....	101.7	91.7	94.7	104.2	+10	+14	+2
For "All other items".....	103.9	71.4	93.4	102.7	+10	+44	-1

NOTE.—All indexes adjusted for seasonal variation except "Cost of living."

# The Trend of Farm Exports and Imports

## EXPORTS

Year and month (ended Dec. 31)	Wheat, including flour <sup>1</sup>	Tobacco (leaf)	Bacon, <sup>2</sup> hams, and shoulders	Lard <sup>3</sup>	Apples (fresh)	Cotton, running bales <sup>4</sup>
	<i>1,000 bushels</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 bushels</i>	<i>1,000 bales</i>
Total:						
1929.....	154,348	555,347	275,118	829,328	16,856	7,418
1930.....	149,154	560,958	216,953	642,486	15,850	6,474
1931.....	125,686	503,531	123,246	568,708	17,785	6,849
1932.....	82,118	387,766	84,175	546,202	16,919	8,916
1933.....	26,611	420,418	100,169	579,132	11,029	8,533
1934.....	36,538	418,983	83,725	431,237	10,070	5,753
1935.....	15,731	381,182	61,691	96,355	11,706	5,861
1936.....	19,079	406,810	46,534	111,292	8,897	5,409
1936 (Prel.):						
July.....	1,389	19,984	7,194	7,481	179	156
August.....	1,666	26,441	4,159	6,045	178	182
September.....	2,415	46,336	2,526	7,857	482	569
October.....	2,436	63,052	2,234	10,454	1,420	862
November.....	1,285	46,732	4,311	9,563	1,078	690
December.....	1,731	33,998	2,611	9,384	853	594
1937 (Prel.):						
January.....	1,576	31,982	2,018	8,804	912	538
February.....	1,522	22,695	2,794	4,456	715	486
March.....	1,565	24,840	3,545	7,324	472	468
April.....	1,699	23,073	4,161	8,245	316	373
May.....	2,108	27,969	4,021	13,565	114	324
June.....	2,217	22,946	3,517	8,288	36	230

<sup>1</sup> Wheat flour is converted on a basis of 4.7 bushels of grain equal to 1 barrel of flour.

<sup>2</sup> Includes Cumberland and Wiltshire sides.

<sup>3</sup> Excludes neutral lard.

<sup>4</sup> Excludes linters.

## IMPORTS <sup>1</sup>

Year and month (ended Dec. 31)	Cattle, live	Beef, canned, including corned <sup>2</sup>	Butter	Wheat, grain <sup>2 3</sup>	Corn, grain	Oats, grain	Barley, malt <sup>2</sup>
	<i>1,000 head</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 pounds</i>
Total:							
1929.....	505	79,899	2,773	36	407	112	1,025
1930.....	234	56,105	2,472	317	1,556	183	4,309
1931.....	95	19,586	1,882	54	618	576	39,875
1932.....	106	24,639	1,014	3	344	59	52,533
1933.....	82	41,344	1,022	31	160	132	109,183
1934.....	66	46,674	1,253	7,737	2,959	5,580	193,728
1935.....	378	76,263	22,675	27,439	43,242	10,107	230,623
1936.....	410	87,764	9,874	39,669	31,471	149	301,767
1936 (Prel.):							
July.....	34	7,503	398	4,477	1,301	1	31,811
August.....	19	8,938	1,182	6,294	1,549	(4)	29,015
September.....	23	6,439	549	4,604	4,144	13	24,922
October.....	21	8,994	643	4,216	8,122	22	26,200
November.....	15	3,703	1,361	3,200	6,263	47	28,715
December.....	13	1,764	1,155	3,385	4,430	20	39,006
1937 (Prel.):							
January.....	51	1,174	2,390	1,866	5,410	9	34,676
February.....	44	3,511	2,915	1,666	8,653	7	30,136
March.....	49	7,123	2,534	1,408	9,458	19	63,090
April.....	57	10,446	1,130	1,091	6,211	6	47,157
May.....	70	8,023	399	992	8,601	8	39,084
June.....	43	12,461	223	2,115	13,824	3	40,259

<sup>1</sup> General imports prior to 1934; beginning Jan. 1, 1934, imports for consumption.

<sup>2</sup> Imports for consumption.

<sup>3</sup> For domestic consumption and includes only wheat full duty paid and 10 percent ad valorem.

<sup>4</sup> Less than 500.

Statistics on exports and imports for the years 1920-28 are contained in the February 1937 issue of the Agricultural Situation.

Compiled from Foreign Commerce and Navigation of the United States and official records of Bureau of Foreign and Domestic Commerce.

# General Trend of Prices and Wages

[1910-14=100]

Year and month	Whole-sale prices of all commodities <sup>1</sup>	Industrial wages <sup>2</sup>	Prices paid by farmers for commodities used in <sup>3</sup> —			Farm wages	Taxes <sup>4</sup>
			Living	Production	Living and production		
1920.....	225	222	222	174	201	239	209
1921.....	142	203	161	141	152	150	223
1922.....	141	197	156	139	149	146	224
1923.....	147	214	160	141	152	166	228
1924.....	143	218	159	143	152	166	228
1925.....	151	223	164	147	157	168	232
1926.....	146	229	162	146	155	171	232
1927.....	139	231	159	145	153	170	238
1928.....	141	232	160	148	155	169	239
1929.....	139	236	158	147	153	170	241
1930.....	126	226	148	140	145	152	238
1931.....	107	207	126	122	124	116	217
1932.....	95	178	108	107	107	86	188
1933.....	96	171	109	108	109	80	161
1934.....	109	182	122	125	123	90	153
1935.....	117	191	124	126	125	98	<sup>5</sup> 154
1936.....	118	199	122	126	124	107	-----
1936							
July.....	118	198	-----	-----	123	108	-----
August.....	119	202	-----	-----	126	-----	-----
September.....	119	198	123	132	127	-----	-----
October.....	119	202	-----	-----	127	110	-----
November.....	120	201	-----	-----	127	-----	-----
December.....	123	211	124	133	128	-----	-----
1937							
January.....	125	209	-----	-----	130	103	-----
February.....	126	211	-----	-----	132	-----	-----
March.....	128	218	127	139	132	-----	-----
April.....	128	219	-----	-----	134	112	-----
May.....	128	219	-----	-----	134	-----	-----
June.....	127	220	29	141	134	-----	-----

Year and month	Index numbers of farm prices [August 1909-July 1914=100]								Ratio of prices received to prices paid
	Grains	Cotton and cottonseed	Fruits	Truck crops	Meat animals	Dairy products	Chickens and eggs	All groups	
1920.....	232	248	191	-----	174	198	223	211	10
1921.....	112	101	157	-----	109	156	162	125	82
1922.....	106	156	174	-----	114	143	141	132	89
1923.....	113	216	137	-----	107	159	146	142	93
1924.....	129	212	125	150	110	149	149	143	94
1925.....	157	177	172	153	140	153	163	156	99
1926.....	131	122	138	143	147	152	159	145	94
1927.....	128	128	144	121	140	155	144	139	91
1928.....	130	152	176	159	151	158	153	149	96
1929.....	120	144	141	149	156	157	162	146	95
1930.....	100	102	162	140	133	137	129	126	87
1931.....	63	63	98	117	92	108	100	87	70
1932.....	44	47	82	102	63	83	82	65	61
1933.....	62	64	74	105	60	82	75	70	64
1934.....	93	99	100	104	68	95	89	90	73
1935.....	103	101	91	127	118	108	117	108	86
1936.....	108	100	100	113	121	119	115	114	92
1936									
August.....	129	103	108	134	123	125	112	124	98
September.....	150	106	105	153	123	128	119	124	98
October.....	128	104	104	131	120	125	127	121	95
November.....	127	103	97	104	118	126	141	120	94
December.....	134	105	93	99	122	127	133	126	98
1937									
January.....	143	107	105	115	128	128	110	131	101
February.....	146	108	127	143	126	126	101	127	96
March.....	145	116	133	131	129	125	102	128	97
April.....	154	117	142	127	130	120	104	130	97
May.....	149	112	152	139	133	116	96	128	96
June.....	139	107	157	124	137	113	95	124	93
July.....	139	106	145	96	144	116	102	125	<sup>5</sup> 94

<sup>1</sup> Bureau of Labor Statistics Index with 1926=100, divided by its 1910-14 average of 68.5.

<sup>2</sup> Average weekly earnings, New York State factories. June 1914=100.

<sup>3</sup> These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

<sup>4</sup> Index of farm real estate taxes, per acre, 1913=100.

<sup>5</sup> Preliminary.



